

Roland®

M-1000

10CH DIGITAL LINE MIXER



A New Type of Mixer for Today's Digital World.

The M-1000 10-channel Digital Line Mixer is a 1U rackmount mixer designed to mix digital signals of varying sample rates. The M-1000 comes with four stereo S/PDIF digital inputs and a stereo analog input—all with 24-bit/96kHz sound quality—making it perfect for mixing electronic musical instruments and recording gear equipped with digital outputs. The M-1000 can even mix audio from a PC via its USB port. Word Clock is also provided, and multiple units can be linked for greater mixing power.

Main Features

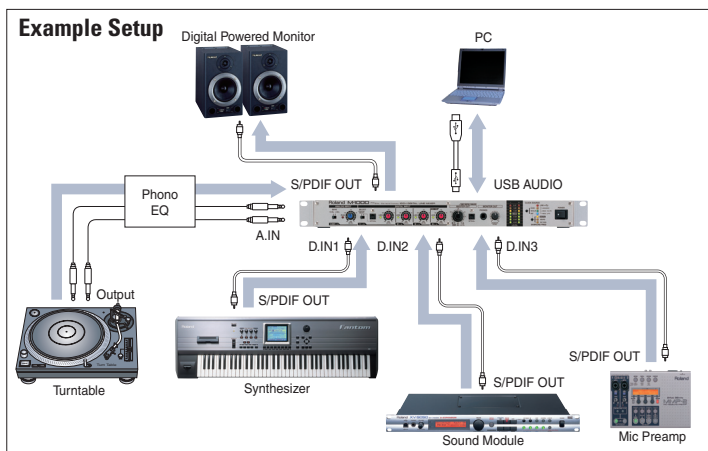
- 10-channel digital line mixer in space-saving 1U chassis
- 4 stereo digital inputs (coaxial/optical) and stereo analog input (1/4" phone)
- USB port for mixing digital audio from a PC
- Superb 24-bit/96kHz sound quality and 56-bit processing throughout
- Professional Word Clock I/O and automatic sample rate conversion
- Coaxial and optical digital outputs, plus analog Master outputs (XLR) and Monitor output (1/4" phone)



Mix Multiple Digital Sources with Professional Quality!

Today's synthesizers, sound modules and recording gear often feature digital outputs, but musicians have never had a way to mix all these sources at once. That's where the M-1000 comes in. This 1U rackmount mixer can mix up to four stereo digital signals of varying sample rates—along with a stereo analog input and digital audio from a PC—with professional 24-bit/96kHz sound quality.

Take a look at the back panel, and you'll find four S/PDIF digital inputs and a stereo analog input with high-quality A/D converters. That's a total of 10 input channels that can be mixed—regardless of sample rate—using the front-panel knobs. The result can be output via coaxial and optical digital outputs or the M-1000's analog Master and Monitor outputs.



Specifications

Signal Processing	
AD Conversion:	24bits, 64 times over sampled, delta sigma
DA Conversion:	24bits, 128 times over sampled, delta sigma
DSP Processing:	56bits
Sample Rate	
	96KHz, 48KHz, 44.1KHz
Analog Input	
Connector:	1/4 inch phone type (unbalanced)
Input Level:	-10dBu, +4dBu (switchable)
Maximum Input Level:	+22 dBu
Digital Input	
Connector:	COAXIAL, OPTICAL
Format:	EIAJ CP-340 TYPEII/Consumer
Digital Audio Input:	24 bits
Analog Output	
Connector:	XLR-3-31 type (balanced)
	1/4 phone type (unbalanced)
Nominal Output Level:	+4dBu (XLR-3-31) Main
	-10dBu (1/4 inch phone) Monitor
Digital Output	
Connector:	COAXIAL, OPTICAL
Format:	EIAJ CP-340 TYPEII/Consumer
Number of Bits for Digital Audio output:	24 bits
USB Connector	
	96 KHz audio signal supported
Word Clock Terminal	
Connector:	BNC
Input Impedance:	75 Ω (terminator on)
Input Signal Level:	TTL Level
Indicators	
	PEAK, LOCK, LEVEL METER, CLOCK, SAMPLE RATE
Power Supply	
	AC117V, AC230V, or AC240V
Power Consumption	
	10W
Dimensions	
	482 (w) X 167 (D) X 44(H)mm 19(w) X 6-5/8 (D) X 1-3/4 (H) inches (EIA-1U Rack-mount type)
Weight	
	1.9kg /4lbs 4oz
Accessories	
	Owners Manual, Driver CD-ROM, AC Cord, USB Cable

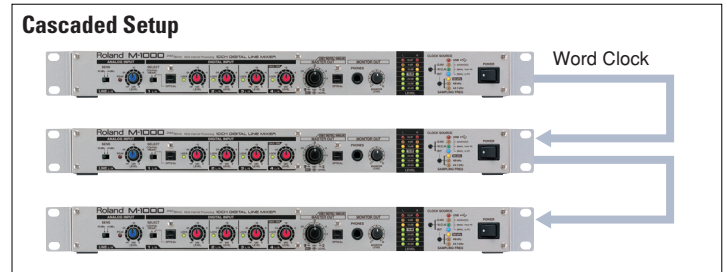
USB Port for PC-Based Recording

The M-1000 even lets you integrate your USB-equipped PC into the mix. Using a USB cable, you can route digital signals from a computer into the M-1000, where they can be mixed with other input channels. The results can then be sent back out to the computer for recording. The M-1000 supports sample rates up to 96kHz—even via USB*—so there's never been a better or easier solution for computer-based recording.

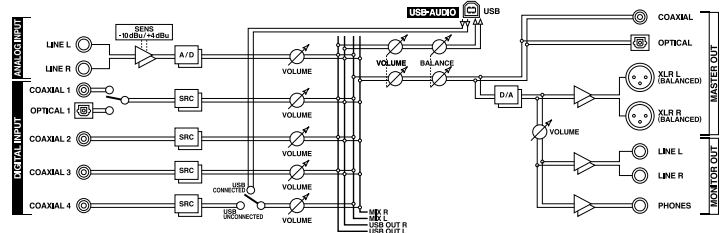
Flexible Sync Options and Expandable Design

With its Word Clock input and output, the M-1000 can be easily integrated into professional studios. The clock source itself is selectable among Internal, Word Clock, Digital In and USB* for maximum flexibility. And with its pro-quality specs—including pristine 24-bit/96kHz AD/DA converters and 56-bit internal processing—the M-1000 can be used in a range of applications from home studio setups to world-class recording and editing suites. Best of all, multiple M-1000s can be cascaded for situations when additional inputs are required.

*At 96kHz, it is not possible to send audio in and out simultaneously via USB.



Block Diagram



System Requirements

Windows

OS	Microsoft Windows 98/98SE/ME/2000/XP
Computer	Windows compatible computer with a USB connector
CPU/Clock	Pentium processor 400MHz or higher (win98/SE/ME) Pentium processor 500MHz or higher (win2000) Pentium processor 600MHz or higher (winXP)
Memory (RAM)	64MB or more
Hard Disk	120MB or more

Macintosh

OS	MacOS 9.0.4 to 9.2.2
Computer	Apple Macintosh series with on-board USB Test Studied on iMac, Power Mac G4, Power Mac G4 Cube, and iBook.
CPU/Clock	PowerPC G3/300MHz or higher
Memory (RAM)	128MB or more (Application memory 32MB or more)
Hard Disk	120MB or more

* This product was tested on ordinary computers based on the requirements above. However, Roland cannot guarantee all functions even if the above conditions are met. This is because the processing power of computers can differ even with the same specs; a result of differences in design concepts and operating environments.